

FBI Laboratory

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LABORATORY REPORT

To: Jason Wildeman Date: August 11, 2022

Special Agent

Oklahoma City Case ID No.: OC-2094038

Lab No.: 2022-01784-2

Communication(s): July 21, 2022

Agency Reference(s):

Subject(s): Donna Mullins; Andy Eilliott

Victim(s): Tinker Federal Credit Union

Discipline(s): Questioned Documents

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FBI Laboratory Evidence Designator(s):

Item 1	Portfolio with top page beginning "1) Bribed at least" (1B19, E7132357)
Item 2	Email printout dated 26 October 2021 (1B18, E7132355)
Item 3	Email printout dated 5 April 2013 (1B18, E7132355)
Item 4	Email printout dated 4 August 2017 (1B18, E7132355)
Item 5	Email printout dated 12 February 2018 (1B18, E7132355)
Item 6	Email printout dated 31 August 2017 (1B18, E7132355)
Item 7	Email printout dated 4 August 2017 (1B18, E7132355)
Item 8	Email printout dated 16 March 2016 (1B18, E7132355)
Item 9	Email printout dated 16 March 2016 (1B18, E7132355)
Item 10	Email printout dated 3 September 2017 (1B18, E7132355)

Enclosures (3)

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GOVERNMENT EXHIBIT

Item 11	Email printout dated 12 February 2018 (1B18, E7132355)
Item 12	Email printout dated 13 April 2018 (1B18, E7132355)
Item 13	Copy of two-page letter submitted as known writing of COURTNEY WELLS
Item 14	Questioned Documents Secondary Evidence (3 electrostatic lifts)

This report contains the results of the questioned document examinations.

Results of Examinations:

HANDWRITING

Support For Different Sources

A source elimination could not be reached due to the limited quantity of undictated known writing. However, inconsistencies were observed which indicate COURTNEY WELLS, Item 13, may not have prepared the questioned writing on Item 1.

If additional handwriting examinations are requested, additional undictated known writing from COURTNEY WELLS, Item 13, should be submitted as well as dictated and undictated writing from any other logical suspects. The known writing should be comparable to the questioned writing in wording, style, and format. Dictated known writing should be prepared in the exact wording as the questioned writing and obtained on separate pieces of lined paper similar to the questioned item. Each repetition should be removed from the writer's view upon completion and numerous repetitions may be necessary in order to obtain naturally prepared writing. Undictated known writing consists of writing prepared during normal course of business activity. Possible sources of undictated known writing include business papers, letters, canceled checks, and/or applications.

INDENTED WRITING

Indented writing was observed on pages of Item 1 using electrostatic processing. The electrostatic lifts, which retain the indented writing, are considered secondary evidence and have been designated Item 14. Attempts to better visualize these entries were met with limited success. Three images are enclosed for your investigative assistance.

ADDITIONAL EXAMINATIONS

No conclusion could be reached whether the Item 2 through Item 12 email printouts were printed at a time consistent with the printed dates or if they were digitally manipulated due to the lack of obvious physical characteristics of alterations/manipulations and lack of known standards for comparisons. However, the following observations regarding the printed emails were made:

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- Item 2, Item 3, and Item 10 were printed using ink jet technology, while Item 4 through Item 9, Item 11, and Item 12 were printed using toner technology. Both print processes are available on a variety of name brand office machines.
- Item 4, Item 5, and Item 8 have consistent trash marks, indicating they share a common source, either directly or indirectly.
- The logo and text on each of the Item 6, Item 8, Item 11, and Item 12 documents are toner printed but have a type of print defect in common which is usually seen in ink jet printed documents, indicating they may have originated from an ink jet printed document.
- The body of the Item 11 and Item 12 emails as well as the "Courtney Wells" entries on Item 4, Item 11 and Item 12 were produced with a font containing serifs.
- The body of the Item 2 through 10 emails, the signoffs on Item 5, Item 9, and Item 10, as well as the "Courtney Wells" entries on Item 6 and Item 8 were produced with a sans serif font(s).
- Differences were observed between the "Courtney Wells" entries and the remaining text on Item 4, Item 6, Item 8, Item 11, and Item 12.

The trash marks on Items 4, 5, and 8 are suitable for comparison with contemporaneous materials to evaluate whether the documents were printed during a particular time period. For instructions on how to obtain proper comparison material, please contact this examiner.

Additional assessments and observations have been made regarding the submitted items and recorded for possible future examinations.

Remarks:

See appendices for methods and limitations regarding the results of examinations.

For questions about the content of this report, please contact Forensic Examiner Lorie L. Cousin at 703-632-7279 or llcousin@fbi.gov.

Item 1 through Item 12 and the 14 secondary evidence will be returned under separate cover.

Item 13 was received electronically and is being retained.

This report conforms to the "Department of Justice Uniform Language for Forensic Document Examinations."

This report contains the opinions and interpretations of the issuing examiner(s) and is supported by records retained in the FBI Laboratory files. Please allow a minimum of thirty days from the date of a discovery request for the FBI Laboratory to provide the related materials. The FBI cannot ensure timely delivery of discovery requests received in less time.

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The work described in this report was conducted at the Quantico Laboratory.

Lorie L. Cousin Questioned Documents Unit

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APPENDICES

Appendix A: Initial Assessment, Physicals, and Indented Writing Methodology

The methodology utilized when conducting an initial assessment or other non-comparison examination of documentary evidence involves an assessment of the submitted evidence to observe and note features of the submitted item(s), record characteristics which may be important for future examinations, assess the feasibility of the requested examinations, and identify other potentially probative examinations.

ambient lighting. If necessary, microscopic, optical, and/or electrostatic analysis of the submitted item(s) and the use of additional specialized equipment, lighting, and/or reference materials may be employed. The aforementioned methods and techniques will be utilized to assess the various substrates (to include polyethylene film products), writing, machine printing, mechanical impressions, indentations, watermarks, writing/printing mediums, and/or other documentary components of the submitted evidence. When conducting these types of initial assessments and physical examinations of the evidence, at a minimum, any probative characteristics observed that may be altered or destroyed by any other examinations (e.g., latent processing) must be recorded. These examination records may be used in future comparisons.

The following equipment, methods and techniques may also be utilized during the initial assessment of the submitted evidence:

- Electrostatic Detection Apparatus (ESDA)
- Video Spectral Comparator (VSC)
- Hyperspectral Imaging (HSI Examiner)
- Digital Microscopy
- Stereoscope/other microscopy
- Various forms of specialized lighting
- 3M Glare-Stop polarizing filters of various sizes
- Various measuring devices such as calipers, rulers, etc.
- Various reference materials and/or software
- 2) Evaluation: Upon completion of the initial assessment the examiner will proceed to the appropriate procedure as determined by the assessment. In instances when examinations do not continue into a comparison procedure, results of the initial assessment deemed probative, indented writing results, and/or watermark results will be reported. These results may include, but are not limited to the following information (as applicable):
 - Writing medium(s) and/or printing process(es) used to produce an item
 - Presence/absence of watermark and/or manufacturer's information
 - Self-adhesive/moisture-activated properties of an item

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- Presence/absence of indented writing and possible interpretation of the indentations
- Suitability of an item for future examinations
- Request for additional items
- Any additional observations and assessments that are made and recorded for future examinations
- 3) Verification and Review: Verifications are performed in instances when a printing process or an interpretation of the content of the indented writing is included in the results of examinations section of the report. Verifications ensure the accuracy of these examinations while additional reviews ensure the appropriate examinations have been conducted, the examiner's conclusions are consistent with technical notes, the technical notes contain sufficient supporting data and are within the limits of the discipline, and all records conform to Laboratory standards.

Limitations:

Factors that may affect the examination process and/or the results rendered include:

- Prior destructive examinations
- Non-original writing
- Insufficient quantity of original material
- Insufficient quantity of physical characteristics/class characteristics associated with the item(s)
- Limited/Lack of comparability
- Oversized/bulky items
- Poor condition of substrate (stretched, warped, cut, torn, or melted)

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Appendix B: Handwriting Methodology

The methodology utilized when conducting a handwriting comparison involves a four-stage process in which a forensic document examiner can reach an opinion concerning whether two handwriting items were written by the same writer or different writers.

- 1) Analysis: The examination begins with the analysis of the items submitted for comparison to determine if the writing is original, naturally prepared, and exhibits characteristics suitable for comparison. Some of the characteristics that can be observed include:
 - Beginning and ending strokes
 - Baseline features
 - Height relationship
 - Slant
 - Spacing
 - Line quality
- 2) Comparison: The second stage is the side-by-side comparison of the items. The numerous characteristics exhibited in the writing between the items are compared to determine the similarities, differences, and limitations, if present.
- 3) Evaluation: The third stage is the formulation of a conclusion based on the significance and combination of the characteristics observed during the comparison and any limitations, if present. The conclusions that can be reached are:
 - Source Identification 'Source identification' is an examiner's conclusion that two or more bodies of writing were prepared by the same writer. This conclusion is an examiner's opinion that 1) the observed quality and quantity of similar characteristics are such that the examiner would not expect to see that same combination of characteristics repeated in a body of writing prepared by another writer; 2) there are no significant dissimilarities to conclude that the bodies of writing were not prepared by the same writer; and 3) there are no significant limitations with the items examined or the circumstances considered (e.g., the writer's skill level, sufficient number of known standards).

The basis for a 'source identification' conclusion is an examiner's opinion that the observed similar characteristics provide extremely strong support for the proposition that the bodies of writing were prepared by the same writer and extremely limited or no support for the proposition that the writings were prepared by different writers.

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A 'source identification' is the statement of an examiner's opinion (an inductive inference) that the probability that a different writer prepared the questioned body of writing is so small that it is negligible.

NOTE: If a 'source identification' conclusion is rendered between a body of questioned writing and the known writing of a particular individual, no other handwriting comparison conclusions will be reported concerning the aforementioned body of identified questioned writing and any other known writers.

• Support For Common Source – 'Support for common source' is an examiner's conclusion that two or more bodies of writing may have been prepared by the same writer. This conclusion is an examiner's opinion that 1) the bodies of writing exhibit a prevalence of similar characteristics to indicate they may have been prepared by the same writer; 2) there are insufficient dissimilar characteristics to indicate that the bodies of writing may not have been prepared by the same writer; and 3) the bodies of writing have limitations that prevent the examiner from providing a 'source identification' conclusion. The degree of 'support for common source' may range from limited to strong.

The basis for a 'support for common source' conclusion is an examiner's opinion that the observed similar characteristics provide limited to strong support for the proposition that the bodies of writing may have been prepared by the same writer and insufficient support for the proposition that the writings may have been prepared by different writers.

• **Inconclusive** – 'Inconclusive' is an examiner's opinion that no determination can be reached as to whether two or more bodies of writing were prepared by the same writer or by different writers.

The basis for an 'inconclusive' conclusion is an examiner's opinion that the bodies of writing have limitations that prevent the examiner from providing any conclusion regarding probable authorship.

• Support For Different Sources – 'Support for different sources' is an examiner's conclusion that two or more bodies of writing may not have been prepared by the same writer. This conclusion is an examiner's opinion that 1) the bodies of writing exhibit a prevalence of dissimilar characteristics to indicate they may not have been prepared by the same writer; 2) there are insufficient similar characteristics to indicate that the bodies of writing may

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have been prepared by the same writer; and 3) the bodies of writing have limitations that prevent the examiner from making an 'exclusion' conclusion. The degree of 'support for different sources' may range from limited to strong.

The basis for a 'support for different sources' conclusion is an examiner's opinion that the observed dissimilar characteristics provide limited to strong support for the proposition that the bodies of writing may have been prepared by different writers and insufficient support for the proposition that the writings may have been prepared by the same writer.

• Source Exclusion – 'Source exclusion' in an examiner's conclusion that two or more bodies of writing were not prepared by the same writer. This conclusion is an examiner's opinion that the bodies of writing exhibit different handwriting characteristics and there are no significant limitations with the items examined or the circumstances considered (e.g., the writer's skill level, sufficient number of known standards, eliminating the possibility of alternative writing styles).

The basis for a 'source exclusion' conclusion is an examiner's opinion that the observed different characteristics provide extremely strong support for the proposition that the bodies of writing were prepared by the different writers and extremely limited or no support for the proposition that the writings were prepared by the same writer.

4) Verification: The final stage of the examination process is the verification. This stage of the process is performed to ensure the appropriate examinations have been conducted, the examiner's conclusions are accurate and consistent with technical notes and are within the limits of the discipline, there is supporting data, and all records conform to Laboratory standards.

Limitations:

A conclusion provided during testimony or in a report is ultimately an examiner's decision and is not based on a statistically-derived or verified measurement or comparison to all other bodies of writing.

When offering a 'support for common source' conclusion, the examiner shall explain the limitations that prevented a 'source identification' conclusion. Likewise, when offering a 'support for different sources' conclusion, the examiner shall explain the limitations that prevented a 'source exclusion' conclusion.

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Factors that may affect the examination process and/or the results rendered include:

- Lack/Limited comparability of writing styles (Cursive vs. printing)
- Lack/Limited comparability of wording
- Lack/Limited contemporaneousness of the known writing
- Prior destructive examinations
- Non-original writing
- Limited quality or quantity of writing
- Distorted writing

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Appendix C: Alteration Methodology

This methodology is used when conducting examinations involving altered documents and other substrates to include tampering. This methodology is also used to determine whether various documents are genuine. This comparison involves a four-stage process.

- 1) **Analysis:** The first stage is the visual examination of the items to be compared using lighting and magnification sufficient to allow fine detail to be distinguished, and the notation of their physical properties in the examination documentation. Some of the characteristics that can be observed include:
 - Overwriting
 - Characteristics of multiple writing instruments
 - Crowded or awkward placement of writing and/or printed text
 - Paper fiber disturbance
 - Use of different fonts, sizes, and/or styles
 - Presence of cut/paste marks
 - Uneven margins
 - Different printing processes
 - Irregular spacing
 - Differences in fastening and binding marks
 - Variations in paper characteristics
 - Differences with standards and/or reference material
- 2) **Comparison:** The second stage is the side-by-side comparison of the items to assess the characteristics.
- 3) **Evaluation:** The third stage is the formulation of a conclusion based on any similarities, differences, and limitations, if present. The conclusions that can be reached for alteration examinations are:

Conclusions when determining whether or not alterations are present:

- Alterations were detected A determination that the item(s) was altered due to the observation of additions or deletions, or sufficient disagreement in physical characteristics with known or reference items.
 - A description of the alteration, to include the manner of alteration, or an image depicting the alteration will be included in the report.
- **No Conclusion/No Determination** No determination could be reached whether alterations are present, due to limiting factors such as insufficient quantity of material, poor condition of the items, or lack of sufficiently suitable characteristics for comparison. This conclusion requires an explanation of limiting factors.

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- Alterations were not detected Nothing was observed to indicate the item(s) was altered due to the lack of observed additions or deletions, or sufficient agreement in physical characteristics with known or reference items.
 - This conclusion does not preclude the possibility that the item(s) was altered. The possibility that other analytical techniques might be able to differentiate the items must be considered.
- Every attempt will be made to utilize the opinions as annotated above. However, due to the dynamic nature of alteration examinations and various circumstances surrounding such examinations, it may be necessary, at times, to render qualified opinions or report observations concerning these types of examinations.

Conclusions when attempting to uncover an obliteration(s):

- A transcription of the visualized obliterated text (or portion of text) or an image depicting the visualized obliterated text or image.
- The obliterated text, or portions of text, could not be visualized due to limiting factors such as prior destructive forensic examinations or limited differentiation due to the similarity of writing instruments used for the original entry and the obliteration.

Conclusions that can be reached when determining whether an item(s) is genuine are:

- **Genuine** A determination that the item(s) is genuine due to sufficient agreement with the standard(s) with no observed differences.
- **No Conclusion/No Determination** No determination could be reached whether the item(s) is genuine due to limiting factors such as non-original items, poor condition of the items, or lack of standards for comparison. This conclusion requires an explanation of limiting factors.
- **Not Genuine** A determination that the item(s) is not genuine due to sufficient disagreement with the standard(s) and/or reference literature.

Observations such as printing processes, security features, and substrates may be provided to the contributor.

4) **Verification:** The final stage of the examination process is the verification. This stage of the process is performed to ensure the appropriate examinations have been conducted, the examiner's conclusions are accurate and consistent with technical notes and are within the limits of the discipline, there is supporting data, and all records conform to Laboratory standards.

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Limitations:

Factors that may affect the examination process and/or limit the results rendered include:

- Non-original specimens
- Poor condition of the questioned and/or known specimens
- Lack of a sufficient quantity of questioned and/or known specimens
- Lack of sufficient reference material for comparison
- Lack of standards
- Limited differentiation could result if the original writing and alteration were prepared using a similar, or the same, writing medium(s)
- Prior destructive forensic examinations

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Appendix C: Graphic Arts Methodology

The methodology utilized when conducting a graphic arts comparison involves a four-stage process.

- 1) Analysis: The first stage is the macroscopic and microscopic visual examination of a printed document using appropriate lighting and sufficient magnification to distinguish fine detail. Some of the class characteristics of printing processes that can be observed include:
 - Ribbon inked/carbon
 - Serrated or stepped edges
 - Overspray around printed characters
 - Embossing
 - Smooth/round edges
 - Ink soaks into paper
 - Toner beads sits above paper

Some individual characteristics, which are random features in the printing or features that are caused by wear in the printing mechanisms, can include:

- Cut-and-paste marks
- Void areas
- Hickeys (in offset lithography, spots or imperfections in the printing)
- Illegible or poor microprint
- Extraneous particles (trash marks)
- **2)** Comparison: The second stage is the side-by-side comparison of the items. If the class characteristics are different between the items, an elimination is appropriate. If the class characteristics correspond, the items are further examined for correspondence of any individual characteristics.
- **3) Evaluation:** The third stage is the formulation of an opinion based on any similarities, differences, and limitations, if present. The range of opinions that can be reached is as follows:

Conclusions when determining whether a particular machine prepared a questioned document(s):

• **Identification** - A determination that the items were prepared by the same machine at some point in time (either directly or indirectly) due to agreement in identifying characteristics. No differences that would preclude an identification were observed. The possibility of a duplicate machine can be eliminated.

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- May Have Been Used in the Preparation and/or Printing A less than definite determination that a particular machine was used at some point in time (either directly or indirectly) in the preparation and/or printing of the questioned document(s). There is a correspondence in characteristics between the machine printouts and the questioned document(s); however, there is limited agreement in identifying characteristics and limitations are present. This opinion requires explanation of the limiting factors.
- No Conclusion/No Determination No determination can be reached as to whether a particular machine was or was not used at some point in time in the preparation and/or printing of the questioned document(s) due to significant limitations. This opinion requires explanation of the limiting factors.
- May Not Have Been Used in the Preparation and/or Printing A less than definite determination that a particular machine was not used in the preparation and/or printing of the questioned document(s) at some point in time (either directly or indirectly). There is a lack of correspondence in characteristics between the machine printouts and questioned document(s) and some inconsistencies are noted; however, limitations are present. This opinion requires explanation of the limiting factors.

Elimination - A determination that a particular machine was not used in the preparation and/or printing of the questioned document(s) at some point in time (either directly or indirectly) due to sufficient disagreement in class and/or identifying characteristics. Significant differences are observed.

Conclusions when determining whether or not two or more documents share a common source:

- Share a Common Source A determination that the items share a common source (e.g. machine, printing plate, artwork, etc.) due to agreement in identifying characteristics. No differences that would preclude a definite determination were observed.
- May Share a Common Source A less than definite determination that the items originated from a common source at some point in time. There is a correspondence in characteristics between the items; however, there is limited agreement in identifying characteristics and limitations are present. This opinion requires explanation of the limiting factors.
- **No Conclusion/No Determination -** No determination can be reached as to whether the submitted items originated from a common source, due to significant limitations. This opinion requires explanation of the limiting factors.
- May Not Share a Common Source A less than definite determination that the items did not originate from a common source at some point in time. There is a lack of correspondence in characteristics between the items and some inconsistencies noted; however, there are limitations. This opinion requires explanation of the limiting factors.

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• **Do Not Share a Common Source** - A determination that the items do not share a common source due to sufficient disagreement in class and/or identifying characteristics. Significant differences are observed.

Information related to the generational order of an item.

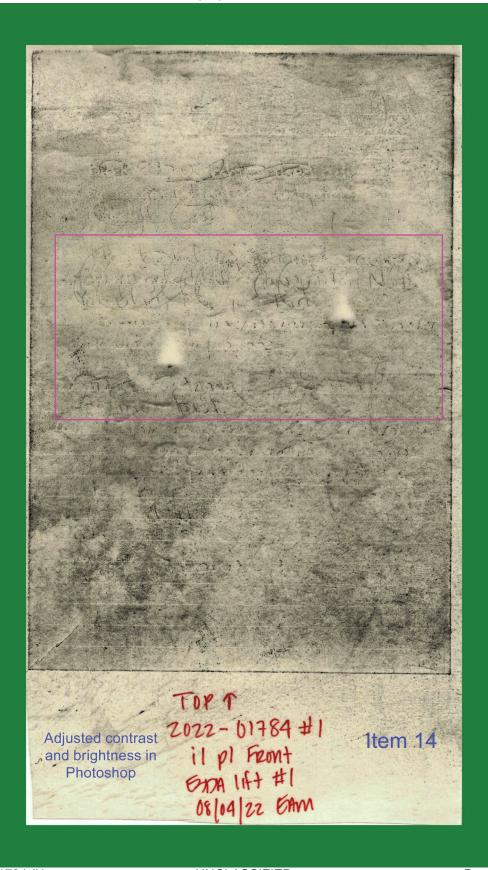
4) Verification: The final stage of the examination process is the verification. This stage of the process is performed to ensure the appropriate examinations have been conducted, the examiner's conclusions are accurate and consistent with technical notes and are within the limits of the discipline, there is supporting data, and all records conform to Laboratory standards.

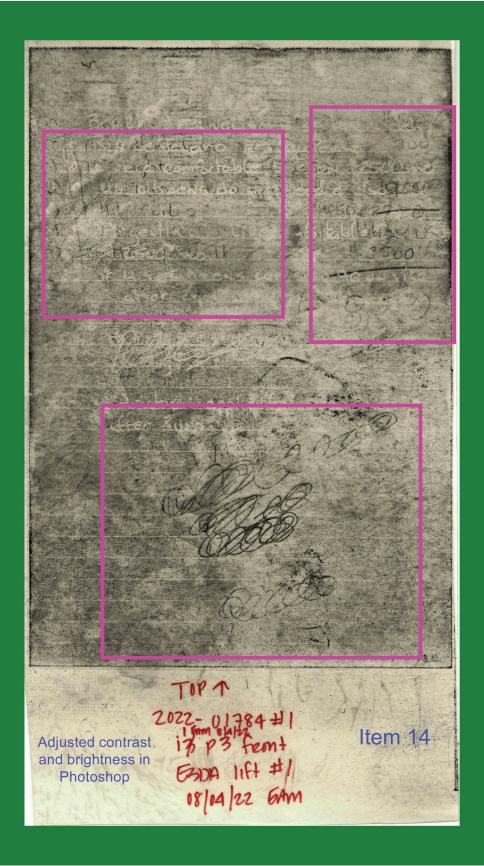
Limitations:

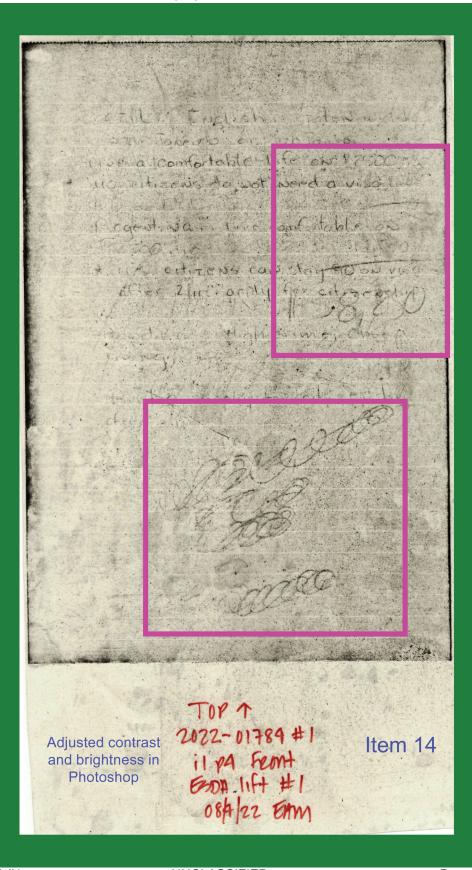
Factors that may affect the examination process and/or limit the results rendered include:

- Lack of sufficient detail and clarity in the specimens
- Poor condition of the items
- Lack of a sufficient quantity/type of exemplars
- Lack of individualizing characteristics
- Possibility that the document(s) prepared using the automatic document feeder may demonstrate different characteristics than a document(s) prepared on a glass platen
- A multi-function machine was used
- Prior destructive examinations

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